

# Research on the Export Status and Countermeasures of Minglu Textile and Garment Co., Ltd. under the Framework of the Belt and Road Initiative

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**Abstract:** In this thesis, focusing on the export situation of Minglu Textile and Garment Co., Ltd. under the Belt and Road Initiative, the export status of the company was analyzed, then the factors of export changes and trade potential were explored based on the models; finally, it was revealed in this research that the company faces unstable trading environment, intensified market competition, and shortcomings in the development of its own technology, brand, talent, etc. in exporting. Countermeasures such as strengthening cooperation, differentiated competition, expanding the market, innovative investment, brand and talent building were proposed in response to these. This thesis provides theoretical and practical references for the company and similar enterprises to enhance export competitiveness and achieve sustainable development under the “Belt and Road Initiative”, enriches research achievements in related fields, and helps the textile and garment industry better integrate into the international economic cooperation pattern of the “Belt and Road Initiative”

**Keywords:** The Belt and Road Initiative; Export Trade; Minglu Company; Trade Potential; Extended Gravity Model

## 1. Introduction

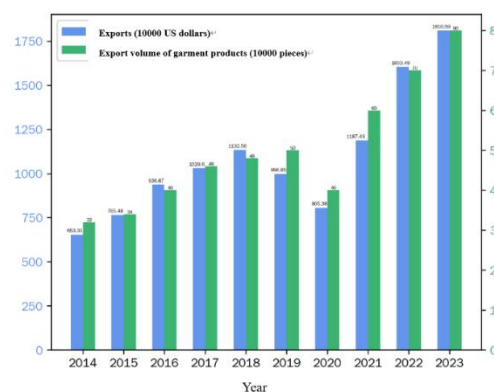
### 1.1 Company Introduction

Established in 2010, Minglu Textile and Garment Co., Ltd. has gradually formed a relatively complete industrial system with its own characteristics through years of continuous development and accumulation. Covering an area of 1,500 square meters, the company is equipped with modern production

plants and advanced textile and garment production equipment, including international leading level textile machines, sewing machines, printing and dyeing equipment, and garment cutting equipment, etc., which has the whole-process production capacity from the processing of textile raw materials to the production of finished garments.

### 1.2 Export Scale and Trend

Aiming to gain a thorough understanding of the export scale of Minglu Textile and Garment Co., Ltd., in this section, the key data such as the export volume and export volume of the company in the countries along the Belt and Road Routes and other major markets in recent years were organized, and the trend of its scale changes was analyzed.



**Figure 1. The Export Volume Changes and Export Volume of Garment Products of Minglu to the Countries along the Belt and Road Routes**

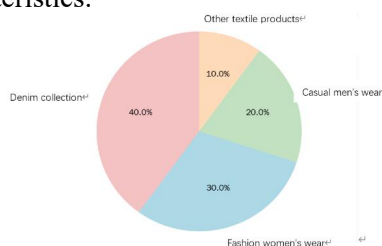
Data source: Export data of Guangzhou Minglu

The export scale and growth trend of Minglu Textile and Garment Co., Ltd. could be clearly understood by analyzing its export data over the past five years (see Figure 1). The export volume of this company showed a fluctuating upward trend during the period from 2019 to 2023; in 2020, affected by the major public

health issues epidemic, international market demand shrank and logistics was blocked, and the company's exports dropped to USD 8.0538 million, a decrease of 20%; in 2021, with the improvement of the epidemic prevention and control situation and the gradual recovery of the economies of various countries, the company's export volume recovered to USD 11.8743 million, an increase of 50% compared with 2020.

### 1.3 Structure of Export Products

Minglu Textile and Garment Co., Ltd. has a rich and diverse structure of export products, covering multiple categories. Various categories occupies different proportions in the export business and presents unique structural characteristics.



**Figure 2. Proportion of Product Exports of Minglu Textile and Garment Co., Ltd.**

Data source: Export data of Minglu.

Judging from the Figure 2, the export proportion of jeans wear is relatively prominent, accounting for approximately 40% of the company's total clothing exports, which benefits from the relatively stable demand of jeans wear in the international market and the company's experience and technological advantages in the design and production of jeans wear. In addition, fashion women's wear occupies an important position in the company's exports, accounting for 30% of total exports, while casual men's wear accounts for 20% of the company's total exports. The company has launched different styles of casual men's wear series for male consumers of different ages. Other textile and apparel products, such as children's wear, sportswear, etc., account for 10% of total exports.

### 1.4 Distribution of Export Markets

Driven by the Belt and Road Initiative, Minglu Textile and Garment Co., Ltd. has been actively expanding its international market, expanded its export scope and made it present significant diversified characteristics.

Table 1 shows that several countries in

Southeast Asia have become important export destinations of the company, among which the export sales to Vietnam account for 25.40% and have grown steadily in recent years. This is because Vietnam's textile and garment industry is booming, with a sharp increase in demand for raw materials and mid-to-high-end clothing products; moreover, it is adjacent to China, enjoying the advantages of low transportation costs, convenient trade exchanges, and close cooperation between the two sides. Considering that Malaysia's economic level ranks among the top in Southeast Asia and has a high demand for fashion and high-quality textiles and garments, the company has launched mid-to-high-end products for Malaysia, which are very popular among local people, accounting for 13% of the export volume. Faced with the Indonesian market with a large population and huge market size, despite challenges such as differences in trade policies, the company's export volume has increased year by year with the deepening of cooperation, accounting for 12% of the export volume. Although Thailand, Cambodia, and the Philippines do not have a high market share, the textile and garment industry is developing rapidly with low labor costs and have strong demands for various textile and garment products.

In addition, the Middle East is a key export market of the company. The United Arab Emirates, as a trade hub in the Middle East, have diverse consumer demands brought by a large number of foreign migrant populations, and the company's export to the UAE accounts for 3%. It is worth mentioning that the company has also successfully expanded into the markets of some developed countries, accounting for 5% in the Canadian market, 6% in the Russian market and 4% in the Australian market.

Generally speaking, the sales proportion of various markets demonstrates the distribution pattern of the company's export business, and the growth potential demonstrated by different markets provides a direction for the company to further expand its export scale in the future.

**Table 1. Proportion of Export Markets of Minglu Textile and Garment Co., Ltd.**

Region	Country	Proportion of Export Sales
Southeast Asia	Vietnam	25.40%
Southeast Asia	Cambodia	4%
Southeast Asia	Thailand	5%

Southeast Asia	The Philippines	3%
Southeast Asia	Malaysia	13%
Southeast Asia	Indonesia	12%
The Middle East	United Arab Emirates	3%
The Middle East	Saudi Arabia	2.50%
The Middle East	Israel	2%
The Middle East	Qatar	3%
Eastern Europe	Poland	8%
Eastern Europe	Hungary	3.50%
Eastern Europe	Czech Republic	3%
Eastern Europe	Romania	3%
Eastern Europe	Serbia	2%
Other countries along the Belt and Road Routes	India	4%
Other countries along the Belt and Road Routes	Pakistan	3%
Other countries along the Belt and Road Routes	Greece	2.50%
Other countries along the Belt and Road Routes	Egypt	3%
Other countries along the Belt and Road Routes	Ethiopia	2%
Other countries	Canada	5%
Other countries	Australia	4%
Other countries	Russia	6%

Data source: Export market data of Minglu.

## 2. An Analysis of the Export Status Based on Theoretical Models

### 2.1 An Analysis of Export Changes Based on the CMS Model

#### 2.1.1 Model construction and data selection

The Constant Market Share model (CMS model) is conducive to effectively analyzing the deep-seated reasons for export changes and providing a basis for enterprises to formulate precise market strategies. In the process of studying the export changes of Minglu Textile and Garment Co., Ltd. under the framework of the Belt and Road Initiative, the classic CMS model was reasonably constructed.

It was assumed that the share of Guangzhou Minglu's export products to countries along the Belt and Road Initiative in the target market remains constant over a certain period of time, then the change in export volume can be attributed to multiple factors. The CMS model constructed based on this is as:

$$\Delta X = \sum_{i=1}^{i-1} (\Delta Q_i \cdot S_i^0) + \sum_{i=1}^n (Q_i^1 \cdot \Delta S_i) + \sum_{i=1}^n (Q_i \cdot \Delta S_i) \quad (1)$$

Where,  $\Delta X$  represents the change in the export volume of Guangzhou Minglu to the countries

along the Belt and Road Routes during the research period;  $i$  represents different product categories or market segments;  $\Delta Q_i$  represents the change in the import demand for Class  $i$  products among the countries along the Belt and Road Routes;  $S_i^0$  represents the market share of Class  $i$  products of Guangzhou Minglu in the base period;  $Q_i^1$  represents the import demand for Class  $i$  products of the countries along the Belt and Road Routes during the reporting period.  $\Delta S_i$  represents the change in the market share of Guangzhou Minglu's Class  $i$  products during the reporting period and the base period. In the above formula,  $\sum_{i=1}^n (\Delta Q_i \cdot S_i^0)$  represents the demand effect,  $\sum_{i=1}^n (\Delta Q_i^1 \cdot S_i)$  represents the structural effect, and  $\sum_{i=1}^n (\Delta Q_i \cdot S_i)$  represents the competitiveness effect.

To make the model analysis more accurate and reliable, the data from 2019 to 2023 were selected as the research samples. This period of time covers the critical period for the further advancement of the Belt and Road Initiative and can better reflect the impact of the initiative on Guangzhou Minglu's exports.

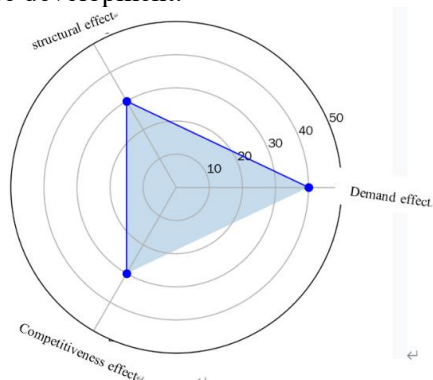
#### 2.1.2 Decomposition of export growth factors

The export growth factors of Minglu Textile and Garment Co., Ltd. to the countries along the Belt and Road Routes from 2019 to 2023 were decomposed in detail through an in-depth analysis of the constructed CMS model.

Figure 3 shows the demand effect contributed 40% to the growth of exports from 2019 to 2023, and the rapid economic development and significant improvement in residents' living standards of the countries along the Belt and Road Routes show a strong growth trend in the demand for textile and garment products. From 2019 to 2023, the competitiveness effect contributed 30% to the growth of exports, and the company invested a large amount of funds in fabric R&D, successfully developed new types of fabrics with multiple functions such as environmental friendliness, breathability, and antibacterial properties, and applied them in the production of clothing. By virtue of these advantages, Guangzhou Minglu continuously expanded its market share in the countries along the Belt and Road Routes in Europe, and its export volume increased year by year.

It was clearly revealed the respective roles and contributions of the demand effect, structural effect and competitiveness effect in the export

growth of Minglu Textile and Garment Co., Ltd. to the countries along the Belt and Road Routes through the analysis of the CMS model, which provides strong data support and decision-making basis for the company to formulate a scientific and reasonable export development strategy, and is conducive to the company better seizing market opportunities, meeting challenges and achieving the continuous growth of export business in its future development.



**Figure 3. Contribution Rate of Export Growth by Various Effects of Minglu Textile and Garment Co., Ltd.**

Data source: Export data of Guangzhou Minglu

## 2.2 An Analysis of Trade Potential Based on the Extended Gravity Model

### 2.2.1 Model setting and variable description

Aiming to deeply explore the trade potential of Minglu Textile and Garment Co., Ltd. with the countries along the Routes under the framework of the Belt and Road Initiative, the traditional gravity model was extended in this research, and the Extended Gravity Model fully considered many influencing factors brought about by the Belt and Road Initiative and could more accurately analyze the influence mechanism and potential of the company's export trade [1].

The model is set as:

$$\begin{aligned} \ln T_{ijt} = & \beta_0 + \beta_1 \ln GDP_{it} \\ & + \beta_2 \ln GDP_{PC_{it}} \\ & + \beta_3 \ln POP_{it} \\ & + \beta_4 \ln DIST_{ij} \\ & + \beta_5 \ln FTA_{ijt} \\ & + \beta_6 LAND_{it} \\ & + \beta_7 \ln TI_{it} + \beta_8 BR_{it} + \beta_9 OBOR_{it} \\ & + \mu_{ijt} \end{aligned} \quad (2)$$

The definitions of various variables are as follows:

$T_{ijt}$ : represents the export volume of Minglu Textile and Garment Co., Ltd. to Country  $i$  during period  $t$ ;

$GDP_{it}$ : represents the GDP of Country  $i$  during period  $t$ ;

$GDP_{PC_{it}}$ : represents the per capita GDP of Country  $i$  during period  $t$ ;

$POP_{it}$ : represents the population size of Country  $i$  during period  $t$ ;

$DIST_{ij}$ : represents the geographical distance between Guangzhou and the capital of Country  $i$ ;

$FTA_{ijt}$ : is a dummy variable; if China signs a free trade agreement with Country  $i$  during period  $t$ , the value is 1; otherwise, it is 0;

$LAND_{it}$ : is a dummy variable; if Country  $i$  is an inland country, the value is 1; otherwise, it is 0;

$TI_{it}$ : represents the level of trade facilitation of Country  $i$  during period  $t$ ;

$BR_{it}$ : is a dummy variable; if Country  $i$  is a country along the Belt and Road Routes, the value is 1; otherwise, it is 0;

$OBOR_{it}$ : is a dummy variable; if Minglu Textile and Garment Co., Ltd. participates in the relevant projects of the Belt and Road Initiative in Country  $i$  during period  $t$ , the value is 1; otherwise, it is 0;

$\beta_0$  is a constant term;  $\beta_1$  to  $\beta_9$  are regression coefficients, reflecting the degree and direction of the influence of each explanatory variable on the explained variable  $T_{ijt}$ ;  $\mu_{ijt}$  is the random error term, used to capture the influence of other random factors not considered in the model on the trade volume [2,3].

### 2.2.2 Empirical Results and Trade Potential Evaluation

The Eviews software was used to conduct regression analysis on the extended gravity model, and the results are shown in the Table 2:

**Table 2. The Impact of Various Variables on the Export Volume of Minglu Textile and Garment Co., Ltd.**

Variable	Coeff	SE	T	Prob.
$\ln GDP_{it}$	0.852	0.125	6.816	0
$\ln GDP_{PC_{it}}$	0.423	0.098	4.316	0
$\ln POP_{it}$	0.365	0.102	3.578	0.001
$\ln DIST_{ij}$	-0.624	0.153	-4.078	0
$FTA_{ijt}$	0.521	0.135	3.859	0
$LAND_{it}$	-0.324	0.128	-2.531	0.012
$\ln TI_{it}$	0.486	0.115	4.226	0

$BR_{it}$	0.453	0.132	3.432	0.001
$OBOR_{it}$	0.632	0.148	4.27	0
$C$	-3.256	0.852	-3.822	0

Data source: Export market data of Guangzhou Minglu, UN Comtrade.

The empirical results revealed that the impact of various variables on the export volume of Minglu Textile and Garment Co., Ltd. has significant statistical significance. The trade potential of Minglu Textile and Garment Co., Ltd. with the countries along the Belt and Road Routes was evaluated based on the above empirical results. The of trade potential was mainly achieved by calculating the trade potential value. The calculation formula of the trade potential value is:  $TP_{ijt} = \frac{T_{ijt}}{\hat{T}_{ijt}}$ , where,

$TP_{ijt}$  represents the trade potential value;  $T_{ijt}$  represents the actual trade volume;  $\hat{T}_{ijt}$  represents the trade volume predicted through the extended gravity model [4-6].

When  $TP_{ijt} < 1$ , it indicates that the trade potential has not been fully exploited and there is considerable room for expansion; when  $TP_{ijt} = 1$ , it indicates that the trade is in a relatively saturated state; when  $TP_{ijt} > 1$ , it indicates that there is excessive trade and there may be some unstable factors. It was found through calculation that the trade potential value of Minglu Textile and Garment Co., Ltd. with some countries along the Belt and Road Routes is less than 1, indicating that the company's trade potential in these countries has not been fully exploited and there is considerable room for development in the future.

### 3. Suggestions on Promoting the Export Trade of Minglu Textile and Garment Co., Ltd.

Combined with the previous analysis of export status based on CMS model and extended gravity model, although Minglu Textile and Garment Co., Ltd. has achieved certain results in its export business under the framework of the Belt and Road Initiative, it also faces many problems and challenges in terms of trade barriers, market expansion, innovation, and the exertion of trade potential.

#### 3.1 To Strengthen Trade Cooperation

An effective way to cope with trade barriers is

to strengthen cooperation with enterprises from countries along the Belt and Road Routes. The company can seek partners in various approaches, such as participating in international textile and garment exhibitions, industry forums, etc., to expand its business network and explore potential cooperation opportunities [7]. Various cooperation models can be adopted when cooperating with enterprises from countries along the Routes, such as joint ventures, cooperative production, and technology transfer.

#### 3.2 To Expand Emerging Markets Through Differentiated Competition

Regarding products, Minglu Textile and Garment Co., Ltd. should increase its investment in research and development, introduce advanced textile technologies and design concepts, and launch products with unique functions and design styles. Regarding the exploration of emerging markets, the company should enhance its research on emerging markets, gain an in-depth understanding of local cultural customs, consumption habits, market demands and competitive situations [8,9].

#### 3.3 To Increase Investment in Technological Innovation and Strengthen Brand Building

Given that technological innovation is the core driving force for the development of enterprises, Minglu Textile and Garment Co., Ltd. should attach great importance to technological innovation, continuously increase investment in research and development, encourage employees to participate in technological innovation activities, and give priority consideration in promotion, training and other aspects [10]. Regarding brand promotion, the company should formulate diversified promotion strategies; in addition to participating in traditional international textile and apparel exhibitions, it should also make full use of the Internet and social media platforms for brand promotion, such as Instagram and Facebook, and regularly publish exquisite product pictures, fashion matching tutorials, brand stories and other content to attract user attention and interaction.

#### 3.4 To Strengthen the Cultivation and Introduction of Talents

The key to meeting the development needs of the company is to establish a complete talent cultivation system. It is necessary for Minglu Textile and Garment Co., Ltd. to formulate personalized training plans according to the needs of different positions. Moreover, the company can organize internal training and exchange activities to enable employees to share their work experience and technical insights, thus promoting mutual learning and growth among employees.

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